

Wyoming ITS/CVO Business Plan

**prepared for:
The Wyoming Department of Transportation
Highway Patrol Motor Carrier Division**

**by
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WYOMING ITS/CVO BUSINESS PLAN

Executive Summary

Commercial Vehicle Operations (CVO) in Wyoming are among the safest and most efficient in the United States. This Business Plan recognizes the successes of Wyoming CVO and proposes seven elements to keep Wyoming a trucking leader. The Plan recommends operations enhancements, including the use of Intelligent Transportation Systems (ITS). It was developed with the Highway Patrol Motor Carriers Division, the Motor Vehicle Services Office, the Federal Highway Administration (FHWA) Office of Motor Carriers (OMC), and the Wyoming Trucking Association (WTA).

Wyoming's ITS/CVO mission is *to enhance CVO in and through the state of Wyoming with public and private partners to produce a safe and efficient transportation system*. This mirrors the national mission.

The goals of Wyoming's ITS/CVO Business plan are:

- To give port of entry personnel more time to conduct vehicle and driver inspections;
- To reduce the paper, time and travel needed to fulfill the regulatory obligations for the state and motor carrier industry;
- To improve the efficiency and effectiveness of the screening process through ITS;
- To develop ITS/CVO applications that benefit the motor carrier industry; and
- To identify and employ ITS/CVO functions that meet the state's needs and financial restrictions.

One key to efficiency is to develop strong working relationships among the various agencies involved in CVO. Through previous efforts, the Wyoming Department of Transportation has already established these working relationships. The Motor Carrier Division and Motor Vehicle Services Office communicate on a daily basis and regularly share information. Additionally, the OMC and the WTA are actively engaged in working with the Motor Carriers Division to improve CVO in Wyoming.

Despite more than seven billion vehicle-miles traveled in Wyoming in 1996, the state has one of the lowest highway fatality rates in the United States, with only 143 people dying in 1996. Trucks were involved in 17 of these deaths, with two truckers and 15 others dying. These numbers reflect the state's dedication to the safety of its highway users.

Wyoming has Weigh-In-Motion devices in three of its interstate ports and this saves carriers time and allows port personnel to efficiently weigh each vehicle. Wyoming has also enrolled in PrePass at these ports using pre-clearance enhancements. New Mexico and California are also PrePass equipped, and Colorado will enter the program in the near future. Additionally, Montana may implement PrePass this year. As more states join the PrePass program, carriers will enjoy seamless interstate freight shipment.

The Motor Vehicle Services Office has simplified the credentialing process for carriers by combining the applications into a single packet that is mailed out to carriers one time a year. The Motor Vehicle

Services Office quickly and effectively responds to applications and provides compliant carriers and trucks with their credentials in a timely manner.

These CVO attributes provide an excellent basis for efficient trucking. However, in the next ten years the truck volume in Wyoming will increase 50%. While the current system serves the current volume well, this Business Plan outlines a path to serving the increasing volume of trucks as well, or better, with the same manpower and resources. The seven elements of the Plan are:

1. Local Information Server - by supplementing the functions currently performed by the Wyoming State mainframe with additional capabilities served from a local server that the Motor Carrier Division already has, more information can be provided to the ports regarding each carrier and truck. Eventually, many functions performed by the mainframe can be performed by the local server, saving the Motor Carrier Division some of the \$400,000 annual mainframe cost.
2. Weigh-in-Motion (WIM) - installing more WIMs will cut the amount of time carriers need to stop in ports, prepare ports for being PrePass equipped, and reduce the amount of time port personnel must spend weighing trucks. The Wyoming Trucking Association will support a user fee increase for the installation of WIMs, provided that they are not exclusively for the use of PrePass customers.
3. Expand PrePass - expanding PrePass will encourage more carriers to enroll by providing a broader network of ports where it can be used. It will also reduce the number of vehicles that port personnel must manually process, thereby freeing time for inspections of unsafe carriers. Because PrePass enrollment is limited to safe carriers, its expansion will encourage carriers to maintain satisfactory safety records.
4. Pre-Clearance Program - The existing Certified Quality Carriers (CQC) program encourages safety by rewarding safe carriers with pre-clearance at specific ports. By expanding this program to more ports, more carriers will be able to see a real benefit, and port personnel will be able to focus more time and resources on unsafe carriers.
5. Increased authority for special officers - many of the elements of this Business Plan will give port personnel time to conduct more thorough safety inspections, and consequentially stopping more unsafe trucks and drivers. This element will give port of entry special officers the authority to enforce safety regulations in conjunction with inspections performed.
6. Joint Facilities - Wyoming already has a joint facility with Montana and is conducting a study to build a new, more modern joint facility at Sheridan, Wyoming. This element encourages the development of working relationships with all of Wyoming's neighbors to assess the feasibility of additional cost-effective and efficient joint ports.
7. Electronic Credentialing - allowing carriers to apply for credentials at the ports will prepare Wyoming for future advances in electronic credential administration and give carriers a more local place to apply for credentials in person than Cheyenne. Applications will still be inspected by the Motor Vehicle Services Office, however, fees and eligibility will be determined almost instantaneously.

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1.0 INTRODUCTION

Intelligent Transportation Systems (ITS) are the application of telecommunication, computer and information technologies to transportation in order to improve transportation safety and efficiency. The national Mainstreaming effort is intended to apply ITS to Commercial Vehicle Operations (CVO) in order to analyze, test and implement new and existing technologies throughout North America. The purpose of the Wyoming ITS/CVO Business Plan is not only to document the status of ITS/CVO in the State, but to serve as a guide in leading Wyoming's ITS/CVO efforts in correlation with the Regional and National efforts. Its role will be to foster the development and implementation of technology designed to assist trucks and buses in moving safely and freely throughout North America.

1.1 National ITS/CVO Mission Statement

The national mission of the ITS/CVO Program is to use cost-effective methods and technologies to streamline state regulatory, enforcement and motor carrier practices, while increasing safety and productivity for both states and carriers, thus improving highway safety for all.

In Wyoming the ITS/CVO mission, *to enhance the commercial vehicle operations in and through the state of Wyoming with public and private partners to produce a safe and efficient transportation system*, mirrors the national mission with an understanding of how to achieve it in terms of local regulatory, institutional, enforcement and motor carrier issues that are described in this document.

1.2 CVO User Service Areas

This mission will be achieved by applying ITS to reduce costs and increase safety by streamlining current Wyoming enforcement and motor carrier practices. For Wyoming, ITS applications for CVO have been categorized into the four national service areas:

- Safety Assurance;
- Credential administration;
- Electronic screening; and
- Carrier operations.

1.3 Wyoming ITS/CVO Business Plan

This business plan is intended to serve as a “roadmap” to Wyoming's ITS/CVO program and will define the broad goals and objectives, as well as specific projects, milestones, responsibilities, and funding levels. This Business Plan will emphasize the application of ITS technologies to improve the

State CVO processes and procedures.

The remainder of this Business Plan is divided into the following sections:

- Section 2 - Overview of the Business Planning Process describes the steps taken by the Consultant and State in developing this Business Plan.
- Section 3 - Description of the state's geography, population, main industries and transportation network. This section also reviews the ITS/CVO procedures and technologies currently employed in Wyoming, the economic and political characteristics that impact ITS/CVO strategies, and the issues and opportunities presented to ITS/CVO strategies.
- Section 4 - Strategic Overview explains the mission of the ITS/CVO Business Plan. It also describes the goals and objectives of the Business Plan and the specific projects and the overall Plan.
- Section 5 - Program Summary describes each of the projects in the Business Plan, the solutions each provides; the involved agencies; schedule and milestones; costs and funding options, and the relationship between all of the ongoing, planned and potential projects.
- Section 6 - The process for reviewing and updating this Business Plan.
- Section 7 - Contact names has the contact information for each agency involved in the Business Plan.

This Business Plan was organized and developed by the Motor Carrier Division of the Wyoming Highway Patrol, with the involvement of the Wyoming Department of Transportation's Motor Vehicle Services Office, Federal Highway Administration (FHWA) Office of Motor Carriers (OMC), WYDOT, and the Wyoming Trucking Association (WTA).

The development of this Business Plan was supported by a grant from the Federal Highway Administration (FHWA) ITS/CVO Mainstreaming funds and a state match provided by the Wyoming highway Patrol.

2.0 BUSINESS PLAN OVERVIEW

The Business Plan was developed in four phases, as follows:

- In Phase I, the direction and focus of this Business Plan was established. Meetings with key

stakeholders at the Wyoming Motor Carrier Division, WTA, FHWA and neighboring states were held to assess the current state of ITS/CVO in Wyoming. Each meeting was an individual interview with a key contact person. These interviews served to identify the issues and opportunities that exist in Wyoming from both the public and private sector perspective.

- In Phase II, the mission, goals and objectives of Wyoming ITS/CVO were defined. A draft set of goals and objectives were defined based on other states' business plans and the interviews conducted in Phase I. This draft was reviewed with the Wyoming Motor Carrier Division and FHWA OMC and a final set of goals and objectives was defined. The relationship between the Business Plan and ongoing projects was determined.
- In Phase III, the range of CVO applications that may serve the needs of Wyoming were identified and reviewed in terms of the State's mission and goals. These applications came from needs stated during the interviews, and from the possible growth of existing CVO programs within the state. Strategies for incorporating and integrating these into the State's Plan were documented based upon the advice and expertise of Wyoming's CVO key contacts.
- Phase IV summarizes the efforts and results of the first three phases to create this final Document, the Wyoming ITS/CVO Business Plan.

3.0 WYOMING STATE OVERVIEW

3.1 Population and Area

Wyoming is the least populated state in the United States, and it covers 97,000 square miles, ninth largest of any state. As of 1996, Wyoming had a total population of 481,000 people with an annual growth rate of 0.5%. Sixty five percent of the population live in urban areas, meaning that 170,000 people populate the 99.5% of the state that is rural. The population density is the second lowest in the country with approximately five people for every square mile of area. The largest city is Cheyenne, the state capitol, where over 50,000 people live. Other cities with more than 10,000 citizens are Casper, Evanston, Gillette, Green River, Laramie, Rock Springs and Sheridan.

The majority of Wyoming's population live in the southern half of the state. There are several reasons for this, including proximity to larger business centers such as Denver and Salt Lake City, a more temperate climate than in the North, and heavier commercial traffic on Interstate 80.

3.2 Wyoming Geography

Nearly half of Wyoming's land is owned by the federal government. Much of that land is in the Yellowstone and Grand Teton National Parks, the national forests, recreational areas and grasslands. Another 3000 square miles are within the Wind River Indian Reservation. From west to east, the state changes from volcanically created mountain ranges to the Great Plains, which begin in the eastern half of the state and continue to the border with South Dakota and Nebraska.

The Rocky Mountains run across the state, cutting northwest from the lower eastern quarter to Yellowstone National Park. The Grand Tetons, directly south of Yellowstone contain some of the steepest mountains in the country. In the center of the state is a series of basins broken by low ridges and ringed by mountains.

The Continental Divide splits the state and runs parallel to the Rocky Mountain Ranges. The Continental Divide is the ridge separating waters that drain into the Atlantic and Pacific oceans. Major rivers in the state include the North Platte River, the Green River, and the Snake River.

Wyoming has moderate summers; long, cold winters; and low amounts of precipitation. Plant life ranges from grasslands and desert shrublands to forests, mountain meadows, and alpine tundra. Wyoming provides refuge for some of North America's largest game animals, including moose, elk, pronghorn antelope, bighorn sheep, mule deer, grizzly bears, and mountain lions.

3.3 Wyoming Industry

Of Wyoming's 481,000 residents, 257,000 are in the state's labor force. The average employment rate for 1996 was 95% of this labor force. Fremont County had the highest unemployment rate at 7.6%, while Albany County had the lowest at 1.8%. The gross state product is over 13 billion dollars, and the per capita gross state revenue is \$27,311. The personal income per capita is \$20,378. The state's major employers are mining, agriculture, federal and state government, and tourism.

Mining is the single largest industry in Wyoming. According to 1996 Statistics from the State of Wyoming, the total valuation of all mining production was 3.3 billion dollars produced by 1,110 mineral producers. Fifty-five percent of this was oil and gas production. This includes the exploration and production of Wyoming's extensive natural gas reserves. Wyoming is the largest producer of coal in the United States and its operations produced 35% of the state's mineral revenue. The sale of livestock and livestock products by ranchers and farmers accounts for about four-fifths of agricultural income. The other fifth is farming which occurs almost exclusively on the Great Plains in the eastern half of the state.

Almost one-quarter of the state's workers are employed in service industries, including tourism. Tourism is primarily centered around the National Parks and recreation areas in the northwestern part of the state. There is also a skiing industry in the winter, which is located in the Rocky Mountains.

Wyoming's income from tourists is growing annually.

Mining and agriculture are both producers of massive quantities of raw material that require shipping. They are shipped out in raw form to manufacturers and industry both within and without Wyoming. As a result, their production is responsible for a large portion of the state's commercial vehicle operations.

3.4 Wyoming Transportation Network

Wyoming is home to portions of three different Interstate highways. I-25 travels north-south through the state and passes through Cheyenne and Casper and ends near Buffalo. I-80 cuts east-west parallel to the southern border. It travels through Evanston, Green River, Rock Springs, Laramie and Cheyenne. I-90 runs from Montana and then east into South Dakota. Sheridan and Gillette are along its path. These Interstates are the main thoroughfares for interstate traffic. They are generally better maintained, larger and designed for higher speeds than other highways and roads. As such, their paths dictate the patterns of commerce within the state, as can be evidenced by the fact that all of Wyoming's major cities are along the Interstates.

3.4.1 Wyoming Roadways

There are over 73,000 lane miles of roads in Wyoming, including over 5,000 in urban roads, and 67,976 lane miles of public roads. Table 3.4.1 describes the lane mileage and travel on them.

Urban			Rural			Total	
Lane Miles	VMT (in Millions)	Average Daily vehicles per lane mile	Lane Miles	VMT (in Millions)	Average Daily VMT per lane mile	VMT (in Millions)	Average Daily vehicles per lane mile
5064	1,679	908	67,976	5,365	216	7,044	264

Table 3.4.1 Total Roadway and VMT in Wyoming - 1995

3.4.2 Vehicle Miles Traveled

In 1995, visitors and residents of the state drove almost seven billion miles. Commercial vehicles were responsible for over 15% of those miles. Table 3.4.2 details the characteristics of this travel. As shown in the table, this travel was spread across Interstates, major highways, secondary highways and other roads.

Annual Vehicle Miles of Travel (in Millions of Miles)								
	Interstate	Other Principal Arterial	Minor Arterial	Major Collector	Minor Collector	Local	Total	Percent of Total by Trucks
Urban	285	8	611	245	343	187	1,679	6.2%
Rural	1,976	1,135	685	508	361	700	5,365	18.0%
Total	2,261	1,143	1,296	753	704	887	7,044	15.3%

Table 3.4.2 Vehicle Miles Traveled by Road Type - 1995

3.4.3 Wyoming Accidents and Injuries

Wyoming's annual number of roadway related fatalities is one of the lowest in the country. In 1996 there were a total of 143 deaths on Wyoming roads. Of these 143 fatalities, 17 were trucking related. In 12 fatal accidents involving trucks, two truckers and 15 others died. Currently, the number of fatalities in Wyoming is so low that it can easily be skewed by a single large accident.

3.5 State Ports-of-Entry

There are 14 Ports of Entry (POE) within Wyoming. Five of these are along the Interstates and the others are on primary and secondary highways. The busiest ports are along Interstate 80, headed eastbound and westbound into the state. The next heaviest corridor is I-25 which runs north-south through the state from Colorado to Montana. The ports on the Interstates operate 24 hours a day. Table 3.5 identifies each port, its location and basic characteristics.

Port Location	Hours of Operation	Staffing (Total/Level 3 Officers)	ITS Implementations	Truck Volume (7/1/96 - 6/30/97)
Alpine (Junction of US 26, US 89 and US191, east of Idaho)	Daily	4 / 2	ISS database, Clearance slip issued	32,451
Casper (off of I-25 in the center of Wyoming)	Weekdays only	3 / 3	ISS database Clearance slip issued	13,351
Cheyenne (US 85 northbound from Colorado)	Weekdays only	3 / 3	ISS database, Clearance slip issued	45,631

Cheyenne (I-80 westbound from Nebraska)	24 hours a day	13 / 4	PrePass, Weigh-in-Motion, ISS database, Clearance slip issued	535,256
Cheyenne (I-25 northbound from Colorado)	24 hours a day	11 / 4	PrePass, Weigh-in-Motion, ISS database, Clearance slip issued	310,543
Evanston (I-80 eastbound from Utah)	24 hours a day	13 / 3	PrePass, Weigh-in-Motion, ISS database, Clearance slip issued	685,606
Frannie (US 310 Southbound from Montana)	Weekdays only	4 / 4	ISS database, Clearance slip issued	46,523
Gillette (I-90 westbound from South Dakota)	Weekdays only	3 / 2	ISS database, Clearance slip issued	15,280
Kemmerer (US 30, east of Idaho)	24 hours a day	7 / 4	ISS database, Clearance slip issued	187,748
Laramie (US 287 northbound from Colorado)	24 hours a day	7 / 3	ISS database, Clearance slip issued	167,254
Lusk (US 20 westbound from South Dakota)	Daily	4 / 2	ISS database, Clearance slip issued	49,844
Sheridan (I-90 southbound from Montana)	24 hours a day	7 / 6	ISS database, Clearance slip issued	135,238
Sundance (I-90 15 miles west of South Dakota)	24 hours a day	7 / 4	ISS database, Clearance slip issued, Rest area, tourist information	112,751
Torrington (US 26 westbound from Nebraska)	Daily	4 / 3	ISS database, Clearance slip issued	51,823

Table 3.5 Wyoming ports and their characteristics

Ports open weekdays have operating hours only during part of the day. Ports open daily are operating at least a portion of all days. 24 hours Ports are open year round except major holidays.

3.6 Commercial Vehicle Registrations

Table 3.6.1 shows the number of tractors and trailers that are registered within Wyoming for the most recent year. County registration is for intrastate commerce, while IRP is for interstate.

	Tractors	Trailers
County Commercial Registration	7,677	6,264
IRP Registration	6,647	6,067

Table 3.6 Vehicle Registration

3.7 Wyoming CVO Practices

In 1991 Wyoming reorganized its state government services. As part of that reorganization the state consolidated its CVO activities under the Department of Transportation. Figure 3.7.1 shows the organizational structure for CVO within the DOT.

One goal of this reorganization was to simplify the CVO processes for the state and the trucking industry. Currently, all processes, except issuance of commercial drivers' licenses and intrastate registration, are housed under a single roof at the Motor Vehicle Services offices in Cheyenne.

Vehicle and carrier registration for interstate carriers is conducted by the IFTA/IRP group under the Motor Vehicle Services office of the DOT. They review applications and issue credentials for in-office visitors and through the mail. They are also responsible for collecting fees and verifying that all carriers are current in fee payments. A database maintained by the Motor Vehicle Services, which is served from a central mainframe, contains up-to-date information on the status of each truck's credentials. This database is accessible by the clerks at all ports of entry.

The intrastate registration is also provided at county DMV offices throughout the state. Intrastate operating authority is handled by the Motor Vehicle Services department.

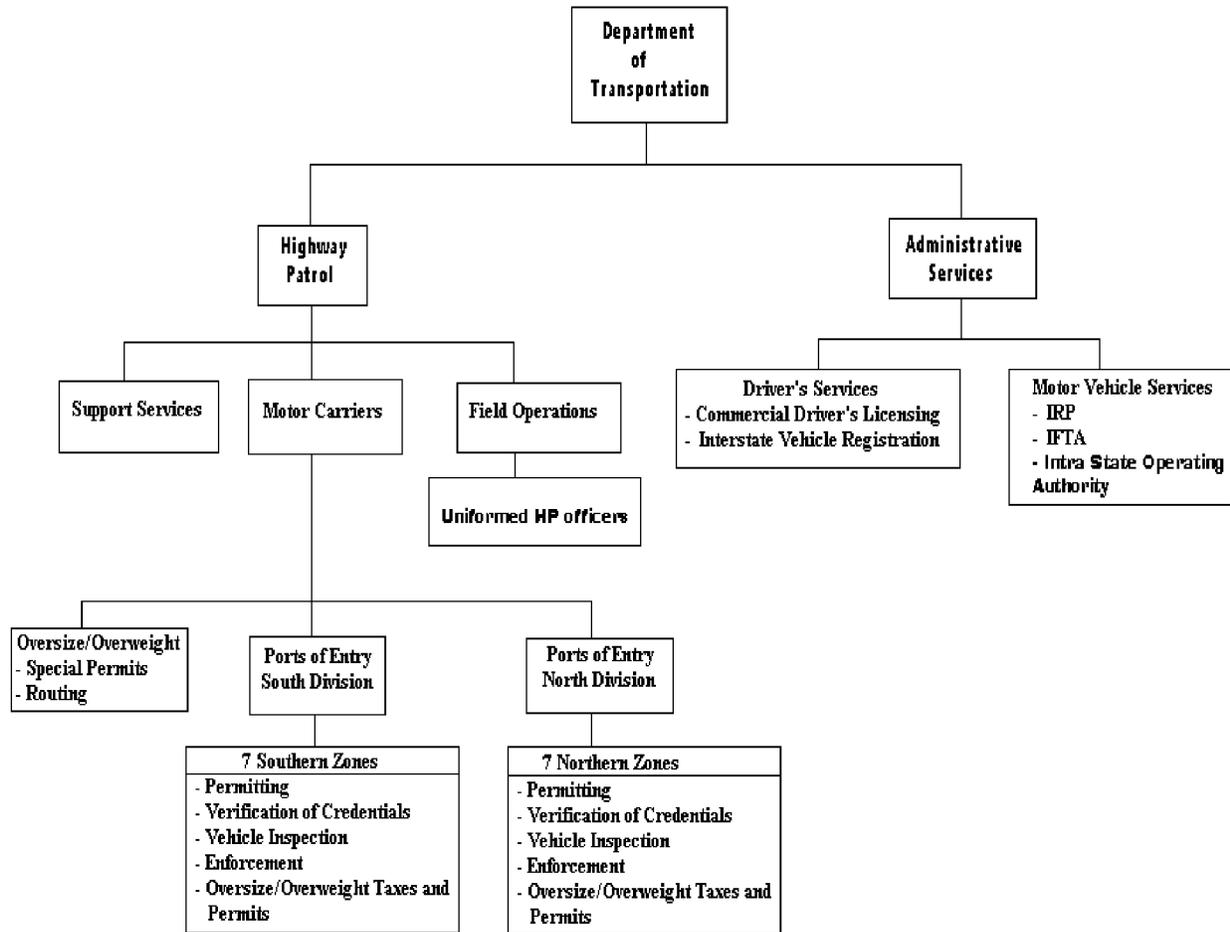


Figure 3.7.1 Wyoming CVO Organizational Structure

Enforcement of size, weight, load, registration, and safety regulation is the responsibility of the State Patrol's Motor Carrier Division. Vehicles are checked for size, weight, load and registration at the 14 ports within the state. Enforcement is also conducted by mobile port teams, and safety is enforced by the uniformed officers of the Highway Patrol. At the ports, Special Officers can conduct safety inspections on drivers and can also issue citations for size, weight and registration violations.

The ports have access to the Inspection Selection System (ISS) database, which is a FHWA administered software package. It is served from a PC at each port. The purpose of the ISS database is to identify which carriers are higher safety and violation risks. It uses an algorithm based on the historical performance of carriers to identify which should be inspected. The ISS database is currently updated quarterly, however, the FHWA is developing means for updating it more frequently.

At the ports, carriers' credentials are verified. If truckers enter a port without proper credentials, they must purchase temporary permits. Also at the ports, any truck carrying a placardable amount of

hazardous material is noted as such in the central database. Most oversize/overweight (OS/OW) vehicles are assessed fees and provided with OS/OW permits at the port. Under extreme circumstances, such as unusually large loads, OS/OW clearances are made by the OS/OW office of the Motor Carrier Division of the Highway Patrol.

Besides providing clearances for unusually large or heavy loads, the OS/OW office's primary role is to route OS/OW vehicles. The staff assesses the safest and best route for OS/OW loads on a truck by truck basis.

3.8 Wyoming Institutional Issues

In 1993, a group of western states conducted a joint study titled "Western States Transparent Borders Project - Institutional Barriers and Recommended Actions." The purpose of this study was to identify institutional barriers and develop a blueprint for resolving those issues in order for the state to successfully and incrementally improve the efficiency with which they regulate trucking industry operations. That study concluded that the institutional issues facing Wyoming can be overcome and that the larger barriers were economic and in interstate agreement on the functions of the ITS/CVO. Because of changes in the national perspective on ITS/CVO and technological improvements since 1993, many of these barriers can be addressed or have disappeared. However, the economic barriers of adapting technology in the least populated state in the United States will continue to be the most limiting factor, and the one that will require the most creative solutions.

Wyoming's Department of Transportation has the support of the Governor's Office in adapting advanced technologies and simplifying CVO. Examples of CVO technologies that have been supported by the state's administration are the installation of PrePass, involvement in the Mainstreaming project, support of investigating improved and streamlined port activities, and the reorganization of the department of transportation that simplified CVO activities.

The majority of trucking in the state is interstate trucking. As Table 3.6 shows, there are only 6647 trucks registered for IRP within the state. The safety issues are spread evenly between intrastate and interstate carriers.

Motor coaches comprise a very small percentage of Wyoming's commercial vehicles. They do not present any special problems or issues to be resolved. This is evidenced by the motor coach accident history in Wyoming.

3.9 Current ITS/CVO Activities

Wyoming has several efforts with the purpose of streamlining the motor carrier services and CVO. These include simplified paperwork, projects to improve safety and speed at the ports, and efforts to better track revenue and disbursement. This section reviews the ongoing state initiatives in terms of

the CVO User Service Areas defined in Section 1.2.

3.9.1 Commercial Vehicle Electronic Clearance

Wyoming is a member of HELP, Inc. In conjunction with Help, Inc., Wyoming has installed the PrePass electronic clearance system at three of its busiest ports. PrePass is installed at these Wyoming POEs by the Wyoming Department of Transportation and HELP, Inc., a non-profit organization based in Phoenix. PrePass uses a vehicle mounted transponder to enable trucks to bypass POEs. Currently there are three states with active PrePass systems: Arizona; California; and Wyoming. Colorado, to the south of Wyoming, is a PrePass state but has not yet deployed the systems. At the time of this writing, there are six carriers within the state that are enrolled in PrePass. Nationwide there are over 50,000 trucks enrolled, and these trucks use Wyoming's PrePass ports in addition to the Wyoming based users.

In Wyoming, PrePass uses a Weigh-in-Motion (WIM) device that allows trucks to be weighed as they approach the POE. The WIM system measures the distance between the trucks axles, weighs the load carried by each axle and calculates gross weight. If the weight is within the allowable limits the truck proceeds through the clearance process.

PrePass allows trucks to be checked for proper credentials as they approach a port. An in-vehicle transponder identifies the vehicle with a PrePass computer at the port through dedicated short range communications (DSRC). The transponder transmits information on the vehicle's operating, safety and registration credentials, so that it does not have to stop to have these verified. Credentials are checked against a PrePass database, and vehicles with all credentials in order are allowed to proceed through the port.

Only carriers with an acceptable safety record are permitted to enroll in the PrePass program. The transponder is provided to enrolled carriers for no charge. The charge per transaction to the operator is less than a dollar when the truck is automatically passed through. There is no charge when the truck is stopped for any reason. The majority of enrolled trucks are those that usually cross several states.

PrePass is designed to allow trucks to pass ports at mainline speeds. However, in Wyoming, the PrePass trucks must slow to less than 30 miles per hour on POE off-ramps. This is still an advantage to drivers over the standard system that requires them to park their trucks and walk to a building to receive clearance.

Prior to the implementation of PrePass, Wyoming developed a clearance system titled CQC - Certified Quality Carrier. In this system, CQCs are allowed to pass a port if they are properly credentialed within the state and meet safety standards. Originally, approximately one dozen carriers enrolled in CQC. Existing CQCs may continue to use this system for pre-clearing their vehicles at PrePass locations.

3.9.2 Automated Roadside Safety Inspection

Wyoming has WIM devices at three of its ports. These devices allow vehicles to be weighed while still approaching the port. The estimates of WIM devices similar to these are generally accurate approximately 80% of the time. Because they are accurate on average only four out of five times, they are not used by Wyoming as the deciding measure of a vehicle's weight. Rather, the WIMs are used as screening devices to determine which vehicles should be looked at more closely.

As a truck approaches, it rolls over the WIM device and its weight is estimated. If the WIM estimate is within the allowable range for gross and axle loads, the truck is instructed to stop to have its credentials checked. If the truck is estimated to be outside the allowable limits, the truck must proceed onto the port's static scales for a more accurate weighing.

By utilizing the WIM devices in this manner, the ports are able to quickly identify the potentially overweight vehicles. This gives port personnel more time to serve truckers and perform other types of safety inspections.

Wyoming has the FHWA OMC developed ASPEN Safety software on Motor Carrier Division highway patrol laptop computers and at all the ports. All safety inspections are entered into the ASPEN database. When motor carrier officers inspect a vehicle, the ASPEN report is transmitted to the central database. At the ports, reports are stored and sent to the central database via floppy disk. From the central database the records are uploaded weekly to a FHWA safety database.

Although it does not automate the inspection process, the ISS database allows Wyoming to determine which vehicles should be inspected. The ISS is a federal database of carriers. It contains records for carriers operating in the United States. The ISS database utilizes an algorithm to assess carriers historical safety performance and indicates whether that carriers should be inspected.

3.9.3 Onboard Safety Monitoring

Currently there are no active programs within Wyoming for onboard safety monitoring. The primary reason for this is that the size of the Wyoming Motor Carrier Division is very small and does not allow for research efforts such as those for onboard safety. Another reason is that the carriers in Wyoming are predominantly small and do not have the resources to invest in research.

Wyoming is not closed to onboard safety monitoring, such as "Smart" cruise control, driver alerts, et al. However, the state's size and resources exclude it from research. It will incorporate proven technologies to help reach its goal of safer and more efficient roads when the technologies are proven and it is feasible for it to do so.

3.9.4 Commercial Vehicle Administrative Process

Wyoming has two options for registering. A carrier may mail in his application or he may turn it in to the Department of Transportation complex in Cheyenne. There are no other facilities for registering at this time. Wyoming has vehicle and carrier registration at one time during the year. They do not have staggered registration where different carriers are required to apply for credentials at different times of the year. This creates a flood of applications within a one to two month period of the year, but because of the small volume, the IFTA/IRP section of the motor vehicles division is able to process them and return the credentials to carriers in a timely fashion.

Trucks that are not IFTA/IRP registered but are entering the state must get their permits at the Ports. There is no advance method for them to get these credentials.

Wyoming has made significant improvements in simplifying the credentialing process. The section responsible for permits and credentials has integrated their International Register Plan (IRP) and International Fuel Tax Administration applications. The two applications are mailed out to carriers in one package with a single instruction manual. Most applications by mail are processed within two weeks.

On a twice-weekly basis, the results of safety inspections conducted in Wyoming are forwarded to the ISS database and incorporated into the historical records for each carrier. Additionally, the IFTA and IRP registration information is sent to the appropriate state. Fuel Tax revenues are disbursed to the state and other states by Wyoming DOT accounting.

3.9.5 Hazardous Materials Incident Response

Placarded hazardous material loads are currently tracked within the internal database which is shared by the ports. This provides the state with the types and numbers of placardable hazardous material loads traversing the state. For all hazardous materials, except radioactive waste shipments, there is no additional fee or requirements.

There will be shipments of radioactive waste material mostly through the state on its way from Northwest states to the Waste Isolation Pilot Project in New Mexico. Radioactive waste shipments are assessed a \$200 fee per container. The carrier does not have to pay the fee at the ports. The carrier can be sent an invoice from the WYDOT accounting group after the fact. Because the select few radioactive material haulers are well known to the state and have good safety records, this system is simple and effective. The revenue generated by the fee is put toward training for radioactive waste shipment incident response. All placarded radiological shipments are subject to the enhanced CVSA inspection process for radioactive shipments.

3.9.6 CVISN Participation

Wyoming is participating in the Northwest Regional Mainstreaming Group along with Idaho,

Montana, Utah and Washington. For the northwest group, Washington is the lead state. Wyoming staff have attended FHWA mainstreaming and CVISN workshops. One goal of this mainstreaming effort for Wyoming is to move toward compatibility with the CVISN goals.

4.0 ITS/CVO MISSION AND GOALS

This section describes the vision and direction of ITS/CVO in Wyoming. It describes the program's driving mission, the underlying goals and the specific objectives aimed at accomplishing the goals.

4.1 Wyoming's Mission for Commercial Vehicle Operations

To enhance the commercial vehicle operations in and through the state of Wyoming with public and private partners to produce a safe and efficient transportation system.

This mission is in agreement with the Wyoming Department of Transportation's overall mission, *to preserve and extend a safe, quality transportation system to provide reasonable access and availability to all of our citizens regardless of where they may reside or do business in our state.*

4.2 Wyoming's Guiding Principles

The direction developed in this business plan reflects the following guiding principles:

- Changes in Wyoming CVO practices will result in improved safety for motor carriers and the traveling public.
- Changes in Wyoming CVO practices will reduce the amount of time spent conducting redundant processes, and increase the amount of time spent verifying that trucks are safe and legal.
- Changes in Wyoming CVO practices will result in reduced costs to the state and the motor carrier industry.
- Changes in Wyoming CVO practices will result in the improved efficiency of freight movement.

4.3 Wyoming's Goals for Commercial Vehicle Operations

In order to achieve the mission, Wyoming has a series of specific goals. These goals follow, along

with brief descriptions of the objectives that will be pursued to achieve each goal.

GOAL: To give port of entry personnel more time to conduct vehicle and driver inspections

Objectives:

- to inspect vehicles and drivers most likely in need of inspection
- to provide Highway Patrol better, more responsive information concerning vehicles on the highway
- to reduce the time spent by port personnel in performing tasks which can be expedited or automated

GOAL: To reduce the paper, time and travel needed to fulfill the regulatory obligations for the state and motor carrier industry.

Objectives:

- to simplify the credentialing process
- to improve data exchange between divisions of state government
- to relate existing and new databases
- to accelerate the credential verification process

GOAL: To improve the efficiency and effectiveness of the screening process through ITS.

Objectives:

- to target vehicles and drivers most likely in need of inspection
- to develop a system that rewards safe drivers and carriers with reduced costs and times
- to automate procedures which allow inspectors more time for thorough inspections

GOAL: To develop ITS/CVO applications that benefit the motor carrier industry.

Objectives:

- to involve the motor carrier industry in the planning process
- to reduce the paperwork and distances that truckers must travel for regulatory processes
- to eliminate redundant efforts by the motor carrier industry
- to reduce the time spent by trucks in the POEs
- to reward compliant truckers while targeting those that may be a safety hazard

GOAL: To identify and employ ITS/CVO functions that meet the state's needs and financial restrictions.

Objectives:

- to identify opportunities in terms of partnerships and responsibilities
- to develop plans in a cost effective, beneficial manner
- to implement systems in a modular fashion which can be expanded as the benefits are realized

- to streamline the administrative processes through advanced technology
- to utilize “off-the-shelf” technologies whenever necessary and available

5.0 PROGRAM SUMMARY

This section describes Wyoming’s ongoing ITS/CVO activities, the program priority issues, and the potential projects and technologies that will address these issues. Essentially, the Business Plan identifies seven practical elements that will improve the safety and efficiency of CVO in Wyoming. These seven elements are, in prioritized order:

1. Local Information Server;
2. Mainline Weigh-in-Motion;
3. Expanding PrePass;
4. Pre-Clearance Program;
5. Increased Authority for Special Officers
6. Joint Facilities; and
7. Electronic Credentialing Pilot Project.

The prioritizing was done through discussion with key stakeholders and the identification of which applications could be most quickly implemented and will have positive benefits. Some of the applications are dependent upon the successful implementation of previous applications. These are listed as a lower priority than the application upon which they depend. In this section, Table 5.0.1 shows each application and the purpose it serves toward each of the User Service Areas that the Wyoming Business Plan addresses. Section 5.1 describes each application in more detail, including the specific objectives, technical approach and estimated costs.

Project	Priority Ranking	Safety Assurance	Credential Administration	Electronic Screening	Carrier Operations
Local Information Server	1	Can provide port clerks a wider range of information for safety assurance.	National and state databases can be stored and retrieved quicker, as well as results of inspections at ports being added directly.	Up-to-date in-state inspection and screening information can be served in addition to the ISS database.	Quicker service at ports
Weigh In Motion	2			Eliminates need for many trucks to stop for weighing, speeds up port screening.	Trucks spend less time in ports.
Expanding PrePass	3		External verification of appropriate credentials		Reduced port time for participating carriers
Pre-Clearance Program	4	Reduce port congestion and lower number vehicles being waved through congested ports.			Reduced time in ports, safe carriers are rewarded.
Increased Authority for Special Officers	5	Summons capabilities for serious violations on inspections of trucks and drivers, utilizes time saved through other efforts			reduced waiting time for inspections
Joint Facilities	6	New facilities will operate at higher speeds and for modern truck needs, potential for mainline clearance.	Potential for data exchange between states.	New facilities can be built with room and facilities for electronic screening technologies.	Faster clearance, modern facilities, potential for information exchange between states.
Electronic Credentialing	7		Quicker response time, credential information updated in database, potential for EFT, credentialing at all ports.		Shorter or no distance for carriers to travel to apply for credentials, quicker response time to applications.

Table 5.0.1 Wyoming ITS/CVO Priorities

5.1 Priority Applications

The first emphasis of the Wyoming CVO program is safety for commercial carriers and the traveling public. The divisions of the Wyoming Department of Transportation involved in CVO activities, as well as the motor carrier industry, have a strong interest in simplifying the credentialing and clearance processes. These concerns make the basis for the prioritization of potential projects. The other priority that cannot be ignored is the benefit of each project compared to costs. While a certain project may not improve safety, it may reduce overall CVO costs and free up resources such as money or manpower. These resources may then be applied to improve safety.

5.1.1 Localized Information Server

CATEGORY: Credential Administration, Safety Assurance, Electronic Screening

LEAD AGENCY: Highway Patrol Motor Carrier Division

OTHERS AFFECTED: Administrative Services IFTA/IRP Division

MARKET: Highway Patrol, IFTA/IRP, motor carrier industry

PROJECT DESCRIPTION:

Currently, the WYDOT Motor Vehicle Services serves its credentials from a centrally located, state-run mainframe. The cost of this service for POE access is up to \$35,000 a month, depending on the amount of access needed. Yearly, the cost can be as much as \$400,000 and is dependent upon the number of requests and mainframe processing time required. As truck traffic increases in Wyoming, the mainframe costs are also going to increase. This priority will reduce the Motor Carrier Division's reliance on the mainframe and will provide an incremental approach to increasing the amount of information collected from and sent to the ports.

The server's role includes serving the Wyoming-based credential information to all POEs. The IFTA/IRP division can also make additions, deletions and changes to the credential database. The current contract for mainframe expires in October, 1998, and Motor Vehicle Services should reduce or terminate the use of the mainframe at that time.

The Motor Carrier Division has obtained a small server that can potentially perform the same functions as the mainframe. This server may also be capable of providing additional functions. Its location will be within the same building as the motor carrier and credentialing offices, providing easy access by the staff. This transition can save the motor carrier division a large portion of the approximately \$400,000 currently spent on the mainframe.

Initially, implementation of the server should be incremental, and in parallel with the mainframe. Some duties performed by the mainframe can be performed by the local server. This will reduce mainframe

costs, provide better service to the ports, and serve as a testbed for increased use of the server.

The Highway Patrol has plans to upgrade its communication infrastructure and add on-vehicle computer equipment in the next three to five years. With this upgrade, officers may potentially have the capability to query the server for information regarding a particular truck that's been stopped. As the server is implemented, this should be a consideration, and every effort to leave it open to this further development should be made.

By providing more and better updated information, the server will help clerks and inspectors identify truckers who may need inspection. It will speed up the credentialing issuance and verification process, giving truckers more time on the road. Finally, additional capability can be added to the server in a modular fashion, and the processing time will not cost the motor carrier division more money.

TECHNICAL APPROACH:

1. Identify the functions performed and data served by the mainframe, including amount of data served and data transfer speed to ports and other clients.
2. Determine which functions can be served by the local server in parallel with the mainframe.
3. Determine the best set of off-the-shelf software applications that can perform the identified range of actual and potential applications.
4. Develop integration between existing functions and the new server. Ideally, the transition to the new server will be transparent to end users, meaning that their interfaces will remain the same. However, if this is not possible, the transition must be made seamlessly so that end-users have access to the databases at all times.
5. Identify the complete set of additional possible functions that a server can perform, including additional information, better information relations, and updating of data on the server. Also included in this task should be possible future functions such as allowing electronic credentialing from remote locations, the ability to relate new databases, and the addition of other query locations, such as highway patrol dispatch and highway patrol vehicles.
6. Implement the server in incremental phases, with the ultimate goal of migrating completely away from the costly mainframe.

OBJECTIVES:

- to inspect vehicles and drivers most likely in need of inspection
- to provide Highway Patrol better, more responsive information concerning vehicles on the highway

- to improve data exchange between divisions of state government
- to relate existing and new databases
- to accelerate the credential verification process
- to implement systems in a modular fashion which can be expanded as the benefits are realized
- to streamline the administrative processes through advanced technology
- to utilize “off-the-shelf” technologies whenever necessary and available

SCHEDULE AND PRIORITY:

This effort should have the highest priority within Wyoming DOT because other projects described in this business plan will depend to some degree on this server. While the others can successfully be accomplished using the mainframe, they will be more costly and more difficult to implement.

The plan should take three years to migrate all existing functions away from the mainframe to the local server. The first set of functions should be transitioned within the first year. Additional functions that are identified in the planning stage of this project will be added in a modular fashion.

ESTIMATED COST:

The following tables break the estimated cost into one-time setup and hardware fees, ongoing staffing, maintenance and operation costs. This estimate is an average of the low and high costs for similar implementations in other states.

Item	Proposed One Time Costs				Total
	Software and Hardware Costs	Installation	Technical Support	Oversight	
Central Database	\$200,000	\$12,500	\$37,500	\$30,000	\$280,000

Table 5.1.1.1 Proposed one time localized information server costs

Item	Proposed Ongoing Costs (per year)				Total
	Staffing (database management)	Operations		Maintenance	
Communications		Supplies			
Central Database	\$30,000	\$17,500	\$500	\$6,000	\$54,000 / year

Table 5.1.1.2 Proposed ongoing localized information server costs

Cost savings Over Five years				
	Current Costs	Proposed One time costs	Proposed Ongoing costs	Total Savings
per year	app. \$400,000	\$280,000	\$54,000	
Projected for five years	\$2,000,000	\$280,000	\$270,000	\$1,450,000

Table 5.1.1.3 Cost savings from localized information server

5.1.2 Weigh In Motion

CATEGORY: Electronic Screening, Carrier Operations

LEAD AGENCY: Highway Patrol Motor Carrier Division

MARKET: Highway Patrol, POEs, motor carrier industry

PROJECT DESCRIPTION:

The simplest and most reliable of the electronic screening systems currently available for CVO is WIM. WIM devices weight the truck at mainline speed and report it back to the port, which can use that information to determine which trucks should be stopped for weight verification.

WIMs should be installed at as many of the existing Wyoming ports as can be afforded. While the current cost and time saving achieved by these WIM devices is significant, they will become even more valuable when Wyoming expands their processes for allowing truckers to continue through POEs without physically presenting their credentials. Fully implemented into pre-clearance systems, WIMs could help truckers save as much as ten minutes per trip, plus wear and tear and fuel associated with starting and stopping, over current conditions.

The WIM devices should be placed in the mainline whenever possible. Mainline WIMs can work with automated clearance systems to let carriers continue on the highway while their credentials are electronically verified. It is not recommended that existing ports with WIMs have that equipment moved into the highway. However, as new facilities are built and existing facilities are upgraded, plans should include mainline installation.

Wyoming's Trucking Association has indicated that they are willing to pay a share of the cost of time-saving devices such as WIM through increased user fees. However, in order to support increased user fees, WTA needs assurance from the State that the WIMs will not be used exclusively for PrePass or any other "for fee" clearance system. Another source of funding may be the FHWA since this priority directly addresses their ITS/CVO strategic plans goal of increased efficiency.

While they will not be used for enforcement, they can serve as screening tools, identifying which trucks should be weighed statically. In this capacity, they will reduce the wait at the scales when the

ports are busy. WIMs are also integral parts of the PrePass system and already are in place at three ports. They are also an essential element in the implementation of Priority Projects #3 and #4. WIMs will also be a major part of future electronic screening technologies.

TECHNICAL APPROACH:

1. Assess the total cost of the WIM for each port based on the facility and land available. Identify the truck volume threshold at which WIM will be a cost-effective solution on a port-by-port basis. Ports reaching or surpassing the threshold volume should be identified potential WIM locations.
2. Identify the resources available. The Wyoming Trucking Association may be willing to bear some cost through increased taxes. If the WIMs are installed in new facilities, a portion of their installation may be paid indirectly from highway funds earmarked for the port construction.
3. Install WIMs in identified ports, first in ports with the highest volumes and those to be fitted with PrePass.

OBJECTIVES:

- to inspect vehicles and drivers most likely in need of inspection
- to provide Highway Patrol better, more responsive information concerning vehicles on the highway
- to develop a system that rewards safe drivers and carriers with reduced costs and times
- to reduce the time spent by port personnel in performing tasks which can be expedited or automated
- to involve the motor carrier industry in the planning process
- to reduce the paperwork and distances that truckers must travel for regulatory processes
- to eliminate redundant efforts by the motor carrier industry
- to reduce the time spent by trucks in the POEs
- to reward compliant truckers while targeting those that may be a safety hazard

SCHEDULE AND PRIORITY:

The installation of WIM devices should be coordinated with any other expected changes at the ports, such as the possibility of a new port facility on I-90 near the Montana border. Other ports should be retrofitted in order of demand, so that the impact of them is optimized.

Depending on funding availability, WIMs should be placed in all identified ports within one to five years, with WIMs first placed in ports that may potentially be PrePass equipped.

ESTIMATED COST:

The following tables break the estimated cost into one-time setup and hardware fees, ongoing staffing, maintenance and operation costs. These estimates are an average of the low and high costs for similar implementations in other states.

Item	Estimated One Time Costs				Total
	Hardware Costs	Installation	Technical Support	Oversight	
WIM / per station	\$175,000	\$175,000	\$30,000	\$20,000	\$400,000

Table 5.1.2.1 Estimated one time WIM costs

Item	Estimated Ongoing Costs (per year)				Total
	Operations			Maintenance	
	Staffing	Communications	Supplies		
WIM/per station	\$0	\$0	\$0	\$12,000	\$12,000 / year

Table 5.1.2.2 Estimated ongoing WIM costs

Cost per WIM for five years			
	Proposed One time costs	Proposed Ongoing costs	Five year cost per WIM
per year	\$400,000	\$10,000	
Projected for five years	\$400,000	\$50,000	\$460,000

Table 5.1.2.3 Estimated cost per WIM over five years

FUNDING:

Funding sources for WIMS that should be considered are utilizing present and future highway funds, cost-savings available after the implementation of the local server, increased user fees, and from the FHWA. In order for the state to consider additional budget, leverage of Federal dollars would most likely be necessary. Cost savings from the local server may not be realized for three to five years and will not address present needs. The WTA will support increased user fees as long as the WIMs are not exclusively used for PrePass or other “pay clearance” systems. FHWA funds may be made available if the State illustrates how this priority helps achieve the national goal of improved CVO efficiency.

5.1.3 Expand Prepass

CATEGORY: Safety Assurance, Electronic Screening, Carrier Operations

LEAD AGENCY: Highway Patrol Motor Carrier Division

MARKET: Highway Patrol, motor carrier industry

PROJECT DESCRIPTION:

As previously discussed, PrePass is available at three ports in Wyoming. To date, the PrePass program has successfully provided carriers with a means for bypassing the port processes in a safe, and controlled environment. PrePass expansion in Wyoming should first occur on the Interstates. The interstates carry the heaviest truck and vehicle traffic, and the safety impact of PrePass will include less interaction between travelers and trucks entering and exiting the highway at low speeds. Additionally, they carry the majority of the State's interstate truck traffic and these carriers are most likely to enroll in the PrePass program.

In addition to the Interstate ports, the ports at Kemmerer and Laramie have traffic volumes that would be well-served by PrePass. PrePass participants could avoid delays, and their usage would shorten the delays for non-participants by removing PrePass customers from the paper clearance requirements.

Expanding the system will provide the state with economies of scale. Its increasing availability will encourage carriers to join the program. As more carriers join, the PrePass system will clear an increasing number of trucks through the ports. This will allow port personnel more time to focus on trucks and drivers that may need permits or be in violation.

Wyoming uses WIM at its PrePass equipped ports. In order for PrePass to be deployed at more ports, the ports must be equipped with WIMs. New facilities should be built with consideration of the space, and approach distance required for both WIM and PrePass.

TECHNICAL APPROACH:

1. Meet with PrePass representatives to determine the cost and feasibility of deploying PrePass at all Interstate ports, and at Laramie and Kemmerer. Identify which ports will first receive them.
2. Include plans for PrePass and WIM within any facility upgrade or design plan.
3. Target PrePass ports as the first to receive WIMs.
4. Install WIMs and PrePass hardware at ports.

OBJECTIVES:

- to reduce the time spent by port personnel in performing tasks which can be expedited or automated
- to accelerate the credential verification process
- to automate procedures which allow inspectors more time for thorough inspections
- to eliminate redundant efforts by the motor carrier industry
- to allow trucks to bypass ports at mainline speeds

- to develop plans in a cost effective, beneficial manner
- to implement systems in a modular fashion which can be expanded as the benefits are realized

SCHEDULE AND PRIORITY:

PrePass is dependent on the installation of WIMs. As the state goes forward with the installation of WIMs, PrePass should be enjoined to install their antennas, readers and related AVI and operating equipment. PrePass, along with WIMs, should be installed in one to five years.

ESTIMATED COST:

Wyoming will be required to install WIMs, at the costs described in Section 5.1.2. All other direct costs are borne by Lockheed Martin, who manages the PrePass program.

5.1.4 Pre-Clearance Program

CATEGORY: Safety Assurance, Electronic Screening, Carrier Operations

LEAD AGENCY: Highway Patrol Motor Carrier Division

MARKET: Highway Patrol, motor carrier industry

PROJECT DESCRIPTION:

2.4 million trucks were processed through Wyoming ports in fiscal 1997 (October 1, 1996 to September 30, 1997). Each trucker was required to have his truck weighed, stop the truck, and get out to present his credentials before clearing each port of entry encountered. The reasons behind the requirement for truckers to get out of their vehicles have been: the physical showing of credentials is a reliable way to ensure each truck has the proper documents; and it gives the port personnel an extended opportunity to determine if vehicles or drivers should be inspected more carefully.

On average, the Wyoming ports cost truckers over four minutes each time they must stop, including deceleration and acceleration, walking to and from the port building, presenting credentials and receiving a clearance slip. This is the equivalent of over 160,000 hours spent by truckers in this process, plus the costs of fuel in nearly 2.4 million cold starts, and the vehicle wear and tear associated with starting and stopping engines. Additionally, this process costs the state in time spent by port clerks producing receipts and interacting with truckers. This is time that could be reallocated to providing more mobile enforcement or more comprehensive inspections of trucks and drivers.

While PrePass provides a means for carriers to clear ports without stopping, in 1996 there were over 900,000 port visits that did not occur in PrePass equipped ports. This priority recommends a low-cost means for allowing safe, credentialed truckers to bypass the other eleven ports.

Wyoming's existing CQC Program can serve as a model of a low-cost method for allowing trucks to clear ports without stopping. It is currently implemented with a select group of Motor Carrier Division approved carriers that frequently use the PrePass ports. It can also be implemented at the smaller ports.

The determination of the number of carriers admitted into the program will depend upon each specific port's available resources, the number of carriers that qualify, and the frequency with which the carriers use that specific port. Only the safest carriers will be admitted into the program, thereby giving all carriers an incentive to have good safety and credential records.

The port personnel will then keep a list of the pre-cleared carriers. For each port, the list will be unique and will contain carriers that use that facility. Carriers from each list will have proven that their credentials are all up-to-date and will have an acceptable safety record. Only carriers from Wyoming and the surrounding states that frequently use a port will be considered. Because they stop at the port often, the carriers' ability to bypass it will provide a significant reward to them and time savings to the port personnel. Additionally, other carriers using the port will experience shorter lines and delays.

The ports that this pre-clearance program will address do not have PrePass, and most are too small for PrePass. Those that will become PrePass, however, may continue the pre-clearance program along with PrePass.

TECHNICAL APPROACH:

1. Identify ports that will participate in the Pre-Clearance Program.
2. On a port-by-port basis, work with port personnel and WTA to identify a select group of carriers that will participate and at which ports they qualify. This group should be small during the trial period, but can be expanded as the program matures.
3. Notify qualified carriers that they may apply for pre-clearance at specific ports.
4. Implement the program.
5. Perform an internal assessment of the program's effectiveness.

OBJECTIVES:

- to inspect the vehicles and drivers most likely in need of inspections
- to reduce the time spent by port personnel in performing tasks which can be expedited or automated
- to identify opportunities in terms of partnerships and responsibilities
- to involve the motor carrier industry in the planning process

- to develop a system that rewards safe drivers and carriers with reduced costs and times
- to accelerate the credential verification process
- to reduce the time spent by trucks in the POEs
- to reward compliant truckers while targeting those that may be a safety hazard
- to automate procedures which will allow inspectors more time for thorough inspections
- to reduce the paperwork and distances that truckers must travel for regulatory processes
- to develop plans in a cost effective, beneficial manner

SCHEDULE AND PRIORITY:

The Wyoming Trucking Association identifies eliminating the physical display of credentials as its first priority. This pre-clearance program requires no new hardware and is modeled after an existing Wyoming program. It can be implemented almost immediately, and expanded as the State sees necessary and is feasible.

COST:

The resources required for implementation will come from existing staffing, and no direct costs will be incurred. WIMs will be beneficial to speed the clearance process, but are not necessary.

The savings provided by this program are in terms of time. Time savings for carriers and port personnel will be recognized as carriers are admitted into the pre-clearance program.

5.1.5 Increased Authority for Special Officers

CATEGORY: Safety Assurance, Carrier Operations

LEAD AGENCY: Wyoming Highway Patrol Motor Carrier Division, Wyoming uniformed Highway Patrol officers

MARKET: Highway Patrol, motor carrier industry

PROJECT DESCRIPTION:

One goal of this Business Plan is to allow the Motor Carrier Division personnel more time to enforce safety regulations. Those that benefit most directly from the time savings measures outlined in this plan are the port personnel. Increasing the authority of the port's special officers will give them the ability to use this additional time for enforcement. Currently, the special officers at the ports can cite truckers for IFTA, IRP and OS/OW violations. They are also trained to inspect the drivers' logs and licenses, but are not able to enforce violations associated with these inspections.

If a special officer notices a violation in such areas as hours of service, or the validity of his license, he must call in a uniformed Highway Patrol officer. This process means that the Highway Patrol

officer must spend time driving to and from the port to cite the driver. During busy periods for uniformed officers, they may be unable to address a violation at a port. Or, during late night hours, there may be no uniformed officer available to enforce a violation.

In the past, attempts to give port special officers more responsibility has been rejected by the legislature. Local carriers have protested that this will give port personnel too much authority and will ultimately cost, and not save, them time. The Motor Carrier Division must illustrate to local carriers and the legislature that increased authority will target out-of-compliance carriers and drivers for inspection. Additionally, the Motor Carrier Division will have Commercial Vehicle Safety Alliance (CVSA) certified inspectors. This will mean they will have the training that CVSA recommends in order to do address the wider range of violations.

TECHNICAL APPROACH:

1. Develop a strategy for presenting this priority to the state legislature. Illustrate the potential for increased safety, and how well the special officers will be trained.
2. Present the proposed statute to the legislature in early 1999.
3. Upon legislative approval, have all special officers receive the CVSA training.
4. Allow special officers to enforce the Federal Motor Carriers Regulations.
5. Continue to train and inform special officers as required by CVSA guidelines.

OBJECTIVES:

- to look at vehicles and drivers most likely in need of inspection
- to reduce the time spent by trucks in the POEs
- to reward compliant truckers while targeting those that may be a safety hazard

SCHEDULE AND PRIORITY:

This element can be implemented as soon as the legislature enacts the statute.

ESTIMATED COST:

There are currently 47 special officers. Each would have to be trained by a CVSA certified instructor for an additional week to ensure compliance with CVSA. Each would also require on-the-job monitoring by a certified inspector and some additional in-service training throughout the year that would take up to two days. If the average week of training costs \$1000 in time, then the cost for the first year of this priority would be \$47,000, plus \$21,000 for in-service training. Additional years would cost only for in-service training and on-the-job inspections.

FUNDING:

Funding for this priority can come from the costs saved through the transition to a local server. Other funds may be available from the Wyoming Department of Transportation provided that it can be shown that this priority will save the Highway Patrol time and money.

5.1.6 Joint Facilities

CATEGORY: Safety Assurance, Credential Administration, Electronic Screening, Carrier Operations

LEAD AGENCY: Wyoming Highway Patrol Motor Carrier Division, Montana Motor Carrier Services

OTHERS INVOLVED: Wyoming Department of Transportation, Colorado Department of Transportation, Idaho Department of Transportation, Montana Department of Transportation, Nebraska Department of Transportation, South Dakota Department of Transportation, Utah Department of Transportation, Colorado Motor Carrier Services, Idaho Motor Carrier Services, Montana Motor Carrier Services, Nebraska Motor Carrier Services, South Dakota Motor Carrier Services, Utah Motor Carrier Services.

MARKET: Highway Patrol, other state motor carrier services, IFTA/IRP, motor carrier industry

PROJECT DESCRIPTION:

Joint facilities can provide a savings in staffing, since information is shared between states and does not require redundant collection. States also can pool facility funds and enjoy an economy of scale which allows for better and more advanced equipment to be installed. Motor carriers also benefit through time saved by going through clearance once and having the information available to both states. Advanced facilities generally result in time savings for truckers through WIM, advanced clearance systems and more efficient inspection practices. Montana and Wyoming already operate a joint facility in Frannie, Wyoming and plan to continue this arrangement.

There are several joint facility opportunities available to Wyoming. The first is for a potential facility between Montana and Wyoming, on I-90 north of Sheridan. Funding of \$218,000 has been allocated to study the structure and operations at this potential joint facility. This study will focus on the feasibility of the facility and make recommendations on its operation. Because Wyoming and Montana are both Help, Inc. states, any resulting facility will most likely be PrePass.

Technological advances in data exchange and port hardware have made joint facilities a realistic possibility. In fact, Montana already operates a joint facility at the Canadian border. Wyoming can use this study as a learning experience on the mechanics of joint facilities. It can also be used as a means for bringing together stakeholders from each state to assess the value to each member of a joint facility. Finally, by reviewing joint facility potential between several bordering states, Wyoming

will be able to most efficiently address institutional issues that are redundant among states and agencies.

TECHNICAL APPROACH:

1. Develop scope of study to include the investigation of broad joint facility issues.
2. Through the study, facilitate the meeting of stakeholders from Wyoming and Montana's potential joint facility partners.
3. Involve stakeholders from other potential joint facility partners in the planning process for the joint facility. This input will produce easier integration at future sites.
4. Develop the joint facility to include WIM and PrePass so drivers in compliance do not need to get out of their vehicles.

OBJECTIVES:

- to inspect vehicles and drivers most likely in need of inspection
- to provide Highway Patrol better, more responsive information concerning vehicles on the highway
- to reduce the time spent by port personnel in performing tasks which can be expedited or automated
- to improve data exchange between divisions
- to identify opportunities in terms of partnerships and responsibilities
- to develop plans in a cost effective, beneficial manner
- to involve the motor carrier industry in the planning process
- to eliminate redundant efforts by the motor carrier industry
- to reduce the time spent by trucks in the POEs
- to automate procedures which allow inspectors more time for thorough inspections

SCHEDULE AND PRIORITY:

The study of the joint facility in northern Wyoming is scheduled to be complete by late 1998. This study will indicate the design and construction period of the actual port.

ESTIMATED COST:

The cost of the initial study is \$218,000 and funding has been secured from the FHWA's Heartland Expressway study. The estimated cost of the facility design and construction will be determined through this study, based on the technologies and resource sharing.

5.1.7 Electronic Credentialing

CATEGORY: Credential Administration, Carrier Operations

LEAD AGENCY: IFTA/IRP Division, Highway Patrol Motor Carrier Division

OTHERS AFFECTED: Department of Transportation Accounting

MARKET: IFTA/IRP, motor carrier industry

PROJECT DESCRIPTION:

The Wyoming Trucking Association stated the IFTA/IRP application process is straightforward and efficient, however, some carriers and truckers have difficulty the first time they fill out the forms. These first time applicants often go to the IFTA/IRP office to receive assistance in filling out the application. The only location where they can receive this assistance is in Cheyenne, which can be as far as 450 miles from the carrier's home base.

Electronic Credentialing will allow carriers and truckers to apply for IFTA and IRP credentials at remote sites. Currently all applications must be processed at the Cheyenne IFTA/IRP office. Carriers and truckers must either present their application and fees in person or mail them. In person, the credentialing can be done within an hour. By mail, applications are processed within two weeks. If there is a problem with a mail application, it is returned to the carrier to correct, adding more time to the process.

Electronic credentialing shall be tested first as a pilot project, where the true costs and benefits can be assessed. Recognizing that few Wyoming truckers are conducting transactions online, the first stage of electronic credentialing will be to allow truckers to apply for IFTA/IRP credentials at the port nearest to their home.

The ports will be connected to the main server described in Section 5.1.1, where the IFTA/IRP databases will ideally be located. The software to permit IFTA/IRP credentialing at the ports shall be developed during the main server development. A terminal, or software, can be installed in the port or ports participating in the pilot project.

The second stage, which is not envisioned within this plan, but should be a feasible extension at a later date, is to expand the electronic credentialing to allow carriers and truckers to apply for IFTA and IRP credentials from a computer via the Internet or dial-up access.

During the pilot project, one or more ports will be equipped to enter IFTA and IRP applications electronically. The port staff will be trained to assist carriers and drivers who choose to apply at the port. Wyoming DOT will advertise this new option through the ports, and potentially through the cooperation of the WTA. While carriers and truckers will be given operating authority once the electronic application is processed, it will be subject to further verification by the IFTA/IRP division.

The pilot project should last at least one year, and include one IFTA and IRP registration period. The Motor Carrier Division and the IFTA/IRP office should conduct an assessment of the pilot project. Carriers who had the opportunity and either chose to or declined to use the system should be contacted for their perceptions. The result of the assessment should be a decision to: continue the pilot project; expand the pilot to include more or all ports; expand the project contingent on specific improvements; or end electronic credentialing.

TECHNICAL APPROACH:

1. Identify the port or ports that will participate in the electronic credentialing pilot project.
2. Provide at least one terminal in each participating port that gives port clerks limited access to the IFTA/IRP database.
3. Train personnel at the participating ports to assist carriers in completing the electronic applications.
4. Publicize the pilot project in the participating ports and through trucking organization publications.
5. Assess the effectiveness of the pilot project in terms of reduced workload for IFTA/IRP personnel and reduced waiting time for electronic applicants.
6. Based on the assessment results, determine whether to continue, expand, or eliminate the project.

OBJECTIVES:

- to simplify the credentialing process
- to relate existing and new databases
- to develop plans in a cost effective, beneficial manner
- to implement systems in a modular fashion which can be expanded as the benefits are realized
- to streamline the administrative processes through advanced technology
- to reduce the paperwork and distances that truckers must travel for regulatory processes

SCHEDULE AND PRIORITY:

This project is dependent upon the software developed in the first priority. If the software for the main server is not developed to allow IFTA/IRP application processing, then that will add six months to the implementation schedule.

If the server transition is complete by October, 1998, the pilot ports can be operable by Spring 1999, and continue to operate on a pilot project basis through Spring 2000.

ESTIMATED COST:

The following tables estimate the costs of the electronic credentialing pilot project. The software development at the server is also included in the total estimated cost for the local server in Priority #1, but is shown here in case it is not incorporated into that project.

Item	Estimated One Time Costs					Total
	Software Costs	Hardware Costs	Installation	Technical Support	Oversight	
Server software	\$70,000 l.s.			\$10,000 l.s.		\$80,000
Port Software	\$50,000 l.s.					\$50,000
Port Hardware		\$5,000 / port	\$3,000 / port	\$5,000 l.s.		\$21,000*
Training				\$15,000 l.s.		\$15,000
Total	\$120,000	\$10,000	\$6,000	\$30,000		\$166,000

* totals assume that two ports will participate in pilot project

5.1.6 Estimated one time electronic credentialing one time costs

The \$166,000 estimate of one time costs is reduced to \$86,000 if the server software development in Priority #1 includes electronic IFTA/IRP application software.

Because this is recommended as a one year pilot project, the one-time costs include all anticipated maintenance and additional training within that year.

FUNDING:

Funding from three locations should be explored. First is any cost savings that the Motor Carrier Division experiences by utilizing the local server. The second is through increased user fees that may be supported by carriers if it is shown that this will save them time and money. The third is from the FHWA which supports electronic credentialing at the national level.

5.2 Overall Plan Schedule

This schedule in Table 5.2.1 shows the elements of the Wyoming CVO Business Plan in terms of their relationships in time. The second column, "Element Dependence", illustrates the dependence that subsequent elements have on previous elements of the Business Plan.

Priority	Element Dependence	Element	Year					
			1998	1999	2000	2001	2002	
1		Localized Information server	■	■	■	■	■	■
2	→	Weigh In Motion		■	■	■	■	■
3	→	Expand PrePass		■	■	■	■	■
4	→	PreClearance Program	■	■	■	■	■	■
5	→	Increased Authority	■	■	■	■	■	■
6	→	Joint Facilities Study	■	■				
7	→	Electronic Credentialing		■	■	■	■	■

- Implementation Phase
- Ongoing Operation
- Optional Program Continuation

Table 5.2.1 Overall Plan Schedule

6.0 BUSINESS PLAN UPDATES

It is recommended that the Business Plan be regularly reviewed and updated for the following reasons:

- to review the needs of the key stakeholders in Wyoming CVO;
- to ensure that the plan is adhering to its schedule;
- to identify unanticipated obstacles and opportunities; and
- to adjust the plan to meet state and national needs when necessary.

At the end of the first year of implementation there should be considerable progress in a number of the priorities identified in this Business Plan. It is recommended that the key stakeholders meet then to review the progress of Wyoming CVO. The initiative for this meeting should be undertaken by the Motor Carrier Division of the Wyoming Department of Transportation.

The Plan outlines the time frame for the priorities over the next five years. Because technology and the needs of the trucking community are rapidly changing, it is recommended that the key stakeholders meet annually, at the very minimum. At these meetings it is important for all stakeholders to keep in mind that the Business Plan is an evolving document and should change when necessary to meet Wyoming's needs. At some point, this group of stakeholders should also identify when the current Business Plan has served its purpose and they should arrange for it to be succeeded by a new plan. The initiative for these annual meetings should also be the responsibility of the Motor Carrier Division of the Wyoming Highway Patrol.

7.0 CONTACT NAMES

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